The Navigation Economic Technologies Program

January 2008

NETS

navigation · economics · technologies

Ohio River Transportation Needs Survey

US Army Corps of Engineers®

IWR Report 08-NETS-R-01

Navigation Economic Technologies

The purpose of the Navigation Economic Technologies (NETS) research program is to develop a standardized and defensible suite of economic tools for navigation improvement evaluation. NETS addresses specific navigation economic evaluation and modeling issues that have been raised inside and outside the Corps and is responsive to our commitment to develop and use peer-reviewed tools, techniques and procedures as expressed in the Civil Works strategic plan. The new tools and techniques developed by the NETS research program are to be based on 1) reviews of economic theory, 2) current practices across the Corps (and elsewhere), 3) data needs and availability, and 4) peer recommendations.

The NETS research program has two focus points: expansion of the body of knowledge about the economics underlying uses of the waterways; and creation of a toolbox of practical planning models, methods and techniques that can be applied to a variety of situations.

Expanding the Body of Knowledge

NETS will strive to expand the available body of knowledge about core concepts underlying navigation economic models through the development of scientific papers and reports. For example, NETS will explore how the economic benefits of building new navigation projects are affected by market conditions and/or changes in shipper behaviors, particularly decisions to switch to non-water modes of transportation. The results of such studies will help Corps planners determine whether their economic models are based on realistic premises.

Creating a Planning Toolbox

The NETS research program will develop a series of practical tools and techniques that can be used by Corps navigation planners. The centerpiece of these efforts will be a suite of simulation models. The suite will include models for forecasting international and domestic traffic flows and how they may change with project improvements. It will also include a regional traffic routing model that identifies the annual quantities from each origin and the routes used to satisfy the forecasted demand at each destination. Finally, the suite will include a microscopic event model that generates and routes individual shipments through a system from commodity origin to destination to evaluate non-structural and reliability based measures.

This suite of economic models will enable Corps planners across the country to develop consistent, accurate, useful and comparable analyses regarding the likely impact of changes to navigation infrastructure or systems.

NETS research has been accomplished by a team of academicians, contractors and Corps employees in consultation with other Federal agencies, including the US DOT and USDA; and the Corps Planning Centers of Expertise for Inland and Deep Draft Navigation.

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I. SURVEY ADMINISTRATION AND DESIGN

Background and Objectives

Starting in late Summer 2007 and continuing through January 2008, SESRC implemented a survey for Ken Casavant, School of Economic Sciences, Washington State University; Wes Wilson, Department of Economics, University of Oregon; and the US Army Corps of Engineers designed to assess the transportation and shipping decisions made by companies who use barge transportation on the Ohio River navigable waterway and/or other modes of shipping including rail and truck. This study is part of an effort by the United States Army Corps of Engineers to evaluate the usage of the river and its maintenance of the system of locks and dams along the river.

Population and Sample

The population for this study consists of businesses in eight different states (Alabama, Illinois, Indiana, Kentucky, Ohio, Pennsylvania, Tennessee, and West Virginia) located on or near the Ohio River navigable waterway. The sample was drawn from a number of different sources including Dun and Bradstreet listings and other merchandising lists. Specific NAICS codes were chosen as the most likely businesses to be freight dependent and shipping materials using the Mississippi River waterway. The selected industries and commodities covered by the NAICS codes were: aggregates, chemicals, coal, grain, industrial coal, iron and steel, ores and minerals, petroleum, and other. The client selected the sample and provided it to SESRC. The client also visited several large coal shippers located in the region and handed out paper questionnaires for those facilities to complete and return. Additionally, trade organizations were contacted and asked to send a message to their members to go to the web survey, answer a registration section and then complete the questionnaire.

Questionnaire Design

The Social & Economic Sciences Research Center worked together with the client to develop the survey instruments. The questionnaire was adapted and updated from similar studies conducted by SESRC[1]. The Web-based questionnaire and telephone questionnaire had the same questions. The paper questionnaire was modified by shortening it and and modifying some questions in order to make this mode easier to answer. Each questionnaire was tailored

[1] See SESRC data reports 04-43 and 06-53.

and personalized at the question level. Several questions throughout the survey included a randomly generated number, of a percentage change between 2% and 60% (2%, 5%, 10%, 20%, 30%, 40%, 50%, and 60%), to help determine the economic sensitivity of transportation rates, transit time, reliability, and volume on their business. Copies of the questionnaire can be found at the end of this report and on the accompanying CD-rom.

II. SURVEY IMPLEMENTATION AND PROCEDURES

Human Subjects Research Review

SESRC submitted the project design and questionnaire to the Institutional Review Board at Washington State University (WSU-IRB) for review of human subjects procedures and compliance with federal regulations for human subject research. Approval was received on July 23, 2007 (IRB #9892).

Data Collection

Procedures. The key element of this TDM survey procedure was to implement carefully designed and timed contacts to the survey sample respondents. The first contact was a letter that introduced the survey and provided the respondents with an Internet address and a unique access number to the online questionnaire. This letter was mailed September 10, 2007 and included a postcard that respondents could return to update their contact information.

Approximately two and a half weeks later, SESRC started the telephone survey portion of the project. The telephone survey matched the web survey. All non-responders to the initial mailing were included in the phone calling phase. All cases received a minimum of 6 call attempts over an 8-week period. These call attempts alternated days of the week and time of the day. If an interviewer called at an inconvenient time for the respondent, the interviewer attempted to schedule a specific time to re-contact the business for an interview. The average interview length for the telephone survey mode was 25.4 minutes.

After the calling was completed, a paper questionnaire was sent to all non-responders. This questionnaire was modified slightly from the web and telephone versions of the questionnaire in order to make it easier for the respondents to complete. A cover letter describing the project was printed as the cover of the questionnaire. The remaining 11 pages were devoted to the questions of the survey. A business reply envelope was included for the convenience of returning the questionnaire to SESRC. All completed questionnaires were entered into the dataser using SESRC's Data Entry module.

Interviewer Monitoring

To maintain data quality and continuity in the telephone data collection process, interviewer performance was regularly monitored and measured. SESRC's current standard is to monitor all interviewers at least once a week during a day or night shift. One of the main purposes of

monitoring is to minimize interviewer effects. Interviewers are scored on specific factors that measure proper interviewing techniques. The two principles that guide the training and scoring of interviews are: (1) respondents should receive information that is delivered by the interviewer in an unbiased manner; and (2) every respondent should receive the same stimulus from each interviewer. These principles translate into five basic interviewing rules that are used as factors by the monitor for scoring an interview:

Rule 1: The reading of each question is exactly as it is written and in the order in which it appears in the questionnaire.

Rule 2: A slow reading pace.

Rule 3: Standard neutral feedback phrases such as “Thank you. That’s important information” or “I see” are given as acceptable responses.

Rule 4: Standard neutral cues or probes such as “Could you tell me more about that” or “Which would be closer to the way you feel?” are given to the respondent to help him/her give more complete answers to questions.

Rule 5: Accurate recording of all responses.

III. CASE DISPOSITION AND RESPONSE RATES

Response Rate

The following table displays the response rate calculations for all completed and partially completed questionnaires received both by mail and completed online. With 437 responses (83 web completes, 52 partial web completes, 257 phone completes, 23 phone partial completes, and 22 mail completes) the overall **response rate** 26.0%.

Table 1. Response Rate

Categories	SESRC disposition codes	Number
Interview (Category 1)		
Completed Questionnaire	CM	362
Partially Completed Questionnaire	PC	75
Eligible, non-interview (Category 2)		
Refusals	R1, R2, R3, R5, RF, RP, RQ	429
Non-contact (general)	CB, GB, WB	466
Respondent never available	RN	62
Telephone answering device	AM, SM	426
Telephone answering device - message left	LM	288
Non contacts	NR, PCI	157
Unknown eligibility, non-interview (Category 3)		
Not-attempted or missing phone number	MP	16
Always busy	BZ	31
No answer	NA	133
Telecommunication tech barriers (e.g., call blocking)	BC	8
Not eligible (Category 4)		
Fax/data line	ED	34
Undeliverable/Return to Sender	RTS	93
Disconnected number	DS	48
Temporarily out of service	CC	26
Number changed	WN	40
No eligible respondent	IE	364
Other	DP, OT	146
Total sample size		3204
I=Complete Interviews		362
P=Partial Interviews		75
R=Refusal or break off		429
NC=Non Contact		507
O=Other		157
Estimate of e is based on proportion of eligible businesses among all numbers for which a definitive determination of status was obtained		0.789
UH=Unknown business		188
UO=Unknown other		0
Response Rate		
(I+P)/(I+P) + (R+NC+O) + (UH+UO)		**25.4%**
Response Rate with elgibility factor		
(I+P)/(I+P) + (R+NC+O) + e(UH+UO)		**26.0%**

IV. DESCRIPTION OF THE DATA

Compact Disc

The data collected in the survey have been copied from permanently stored files maintained on SESRC's dedicated server at Washington State University to a compact disc. Table 2 provides a list of the folders and files provided on the compact disc.

Table 2: File names and Descriptions

File	DESCRIPTION
ohio_web_phone_mail_cm_client.sas7bdat	SAS file
ohio_web_phone_mail_final_frequency_listing_client.sas	SAS listing file
ohio_final_web_mail_phone_disposition_client.doc	Disposition listing
ohio_web_mail_phone_comp_client.sas7bdat	SAS disposition file
OHIO Data Report.doc	Data report document
ohio_mail_web_phone_cm_open_end_notes_final.xls	Open-ended comments
ohio_web_phone_mail_final_frequency_listing_client.doc	Frequency listing
<Survey Materials>	Questionnaire and letters

Original Numeric Data File

The data is provided as SAS file. There are 437 cases in this data set. All variable labels and categories labels are saved in this file. Missing values (unanswered questions) throughout the data are indicated by negative numbers.

Remarks and Notes Data Files

The remarks data corresponding to the open-ended questions written by the respondent in this survey are sorted by group, identification number and then by question number. The WSU identification number is the first number, followed by the question alias, the sample group, and then by the open-ended remarks. An example is shown in Table 3. The remarks files are in Excel file format and are easily sorted. This file is included on the CD but is not printed as part of this report.

Table 3. Generic Example of the Remarks Data

9999	Q1	Group	This is an example of the open-ended remark text format that is in the remarks data file

PLEASE NOTE: The remarks and notes data have been only minimally edited. The files were run through a spell check, and any obvious references to individual respondents were deleted. However, the data would remain strictly confidential. The remarks and notes data should be treated as confidential information and printed for release only after careful review and necessary editing.

V. RECOMMENDATIONS FOR FUTURE STUDIES

One of the main challenges with this type of project is identifying the sample. The eligibility screening section at the beginning of the telephone questionnaire proved to be very helpful to both the respondents and the interviewers to determine if that business should complete the questionnaire. We recommend adding a similar section to the web survey to help the respondent determine if they should answer the survey and also to indicate which person in the company would be the most appropriate respondent. It would also facilitate the process to be better able to screen for duplicate cases. In some instances, shipping decisions were not made at the local level but at a regional level. The same person would be the respondent for several different sites.

For the data collection process, a mixed mode survey proved beneficial and each survey mode yielded completed questionnaires. Mixed mode option give respondents the choice of completing the questionnaire in the manner that is most convenient for them and best suits their needs for checking records or other sources and providing answers to survey questions. Making the questionnaire as short and simple as possible keeps the respondents more engaged and less likely to drop out part way through the interview.

The telephone interviewers need a thorough training with complete background information and Frequently Asked Question materials in order to conduct the highest quality interviews available. The more they know about the project, the better able they are to answer questions and complete interviews with respondents. It is useful to have a debriefing with the interviewers shortly after the start of the telephoning process to address any concerns or make adjustments to the survey instrument.

As part of the questionnaire, it would be helpful to include a question about fuel surcharges for the truck shipping sections. It also appears that train shipments are almost always made over long distances. For short transits, it might be useful to build a check that skips train shipping questions.

This survey even though it was administered as mixed survey mode, still has a lower than desired response rate. In this survey effort, there are 3 concerns: 1) survey burden of complex questions, 2) length of interview, and 3) reaching the correct respondent. Another strategy for improving response rates would be to conduct an experiment and try including a token level cash incentive to help emphasize the importance of the study to responents and to invoke more social exchange. This is a strategy that even federal agencies (BLS, Census) are employing to improve respondent cooperation.

VI. SURVEY DOCUMENTATION

Telephone Questionnaire

IDNUM:
SESRC ID NUMBER -- SAMPLE

OH_ID:
OHIO CLIENT ID -- SAMPLE

CMPNY:
COMPANY NAME -- SAMPLE

ADDR1:
ADDRESS LINE 1 -- SAMPLE

CITY:
CITY -- SAMPLE

STATE:
STATE -- SAMPLE

ZIP:
ZIP CODE -- SAMPLE

LOC:
LOCATION -- SAMPLE

PHONE:
TELEPHONE NUMBER -- SAMPLE

AGGRE:

PETRO:

GRAIN:
Different commodity.....0
Grain 1

CHEM:

IRON:

ORES:

OTHER:

COMM:
COMMODITY -- SAMPLE

SHPRC:
SHIPPER OR RECEIVER CODE -- SAMPLE 0=SHIPPER 1=RECEIVER
Shipper 0
Receiver 1

PC1:
PERCENT CHANGE 1 -- SAMPLE

PC2:
PERCENT CHANGE 2 -- SAMPLE

PC3:
PERCENT CHANGE 3 -- SAMPLE

PC4:
PERCENT CHANGE 4 -- SAMPLE

PC5:
PERCENT CHANGE 5 -- SAMPLE

PC6:
PERCENT CHANGE 6 -- SAMPLE

PC7:
PERCENT CHANGE 7 -- SAMPLE

PC8:

PC9:

PC10:

REP:

REPLICATE -- SAMPLE

Replicate 1 1
Replicate 2 2
Replicate 3 3
Replicate 4 4
Replicate 5 5
Replicate 6 6
Replicate 7 7

STYPE:

Sample Type This variable is for branching for Listed and RDD samples.

Listed.....1
RDD 2

TZONE:

Time Zone This is a variable calculated by Voxco based on the area code of the phone number. If in quotas you get numbers with no Time Zone, then that area code is missing from the Zones tab in the Installation module. Also, please let the maintainer of this file know so that changes can be made for future projects.

Newfoundland.....1
Atlantic.....2
Eastern.....3
Central.....4
Mountain.....5
Pacific 6
Alaskan 7
No Time zone set 0

INTRO:

Place Sample and Callback information here as needed. Company Name: <CMPNY> Address: <ADDR1> City: <CITY> State: <STATE> Phone: <PHONE> Commodity: <COMM> Shipper/Receiver: <SHPRC> Respondent's name for call back: <NAME> F9 Notes: <F9:O>

Press ENTER to continue .....ST

FIL1:

FILL FOR 0 = TO (SHIPPER) 1 = FROM (RECEIVER)

to 0
from.....1

FIL2:

FILL FOR 0 = destination (SHIPPER) 1 = origin (RECEIVER)

destination.....0
origin.....1

FIL3:
FILL FOR 0 = OUTBOUND (SHIPPER) 1 = INBOUND (RECEIVER)
outbound 0
inbound 1

FIL4:
FILL FOR 0 = load (SHIPPER) 1 = unload (RECEIVER)
load.....0
unload.....1

FIL5:
FILL FOR 0=outgoing (Shipper) 1=incoming (Receiver)
outgoing 0
incoming 1

FIL6:
FILL FOR 0=made (Shippers) 1=received (Receivers)
made.....0
received.....1

FIL7:
FILL FOR 0=sold (Shippers) 1=bought (Receivers)
sold.....0
bought 1

FIL8:
FILL FOR 0=sent (Shipper) 1=received (Receiver)
sent.....0
received.....1

FIL9:
FILL FOR 0 = shipped (SHIPPER) 1 = received (RECEIVER)
shipped.....0
received.....1

FIL10:
FILL FOR 0=sell (Shippers) 1=buy (Receivers)
sell.....0
buy.....1

FIL11:
FILL FOR 0 = receive (Shippers) 1 = paid (Receivers)
receive.....0
paid.....1

FIL12:
FILL FOR 0=shipping (Shippers) 1=receiving (Receivers)
shipping.....0
receiving.....1

FIL13:
FILL FOR 0=ship (Shippers) 1=recieve (Receivers)
ship.....0
recieve.....1

FIL14:
FILL FOR 0=sending (Shippers) 1=receiving (Receivers)
sending.....0
receiving.....1

FIL15:
FILL FOR 0=price you receive (Shippers) 1=price you pay (Receivers)
price you receive.....0
price you pay.....1

FIL16:
FILL FOR 0=decreased (Shippers) 1=increased (Receivers)
decreased.....0
increased 1

FIL17:
FILL FOR 0=from (Shippers) 1=to (Receivers)
from.....0
to 1

FIL18:
FILL FOR 0=receive (Shippers) 1=pay (Receivers)
receive.....0
pay.....1

FIL19:

FILL FOR 0 = INCREASE (SHIPPER) 1 = DECREASE (RECEIVER)

increase 0
decrease.....1

BEGIN:

Hello, my name is _____ and I am calling from Washington State University The person that I need to speak to is the Logistics or Shipping manager or someone else who is responsible for making shipment decisions at your location. (Hello,) we are conducting a study for the federal government (U.S. Army Corps of Engineers)to gather information on how firms make transportation decisions. The results will be used to help make decisions on transportation investments in your area. The survey will take about 20 minutes to complete and is very important to policy makers. Your participation is critical to the accuracy of the results.

Speaking to R.....1	=> /CONFD
Check Respondent Eligibility 2	=> ELIG1
R not available / Set callback (GB, CB, HB).....3	=> /INT01
Non contacts (AM, BC, BZ, ED, NA).....4	=> /INT02
Refusals (R1, R2, R3, RP) 5	=> /F10
Non-working numbers (CC, DS, MP, WN).....6	=> /VERFY
Communication barrier (DF, HC, LG) 7	=> /INT03
Other codes (DD, DP, OT, RN).....8	=> /INT04
Ineligibles (IE) 9	=> /INT05
Special project codes ().....10	=> /INT99
Web/Mail codes 11	=> /INT98

ELIG1:

What type of business is this?

Open Text Box.....1
Don't know.....D
Refused .....R

ELIG2:

What products do you sell?

Open Text Box.....1	
Do NOT sell products 2	=> ELIG4
Don't know.....D	
Refused .....R	

ELIG3:

How do you deliver the products you sell?

Truck, Rail or Barge	1	=> ELIG6
UPS, FedEx, DHL, Post Office	2	
Customer comes and picks up	3	
Don't know	D	
Refused	R	

ELIG4:

Do you receive any products, supplies, or commodities such as rock, sand, stone, grain, chemical, coal, minerals, or petroleum products (gasoline, diesel fuel)?

Yes	1	
No	2	=> /INT05
Don't know	D	=> /INT05
Refused	R	=> /INT05

ELIG5:

Do you receive anything by Truck, Rail car, or barge or do you receive them in smaller shipments such as UPS or FedEx packages?

Truck, Rail, Barge	1	=> ELIG6
UPS or FedEx	2	=> /INT05
Don't know	D	=> /INT05
Refused	R	=> /INT05

ELIG6:

Based on these answers, your company is the type we would like to interview. Could we start the survey?

Continue with survey	1	=> /CONFD
No - Try refusal prevention	2	=> /F10
Not a good time - Call back later	3	=> /INT01

CONFD:

This study has been reviewed and approved by Washington State University and the Office of Management and Budget. While my supervisor may monitor this call, all your answers are voluntary and will be kept strictly confidential. If I come to any question you would prefer not to answer, just let me know and I will skip over it. Okay?

Continue with survey	1	=> /Q01
No - Try refusal prevention	2	=> /F10
Not a good time - Call back later	3	=> /INT01

Q01:

First, we would like to ask a few short questions about your transportation options. Do you have rail service at your facility located near <CITY>, <STATE>?

Yes 1
No.....2 => Q01B
Don't know .....D
Refused .....R

Q01A:

What is your rail car siding capacity at that site? (IWR PROMPT: "Please give us your best estimate")

$E 0 9999

Don't know .....D
Refused .....R

Q01B:

How far is it in miles to the nearest rail facility you use or would use? (IWR PROMPT: "Please give us your best estimate") (IWR NOTE: If rail siding is located at that facility, enter 0.)

$E 0 3000

Rail NOT AVAILABLE from this site.....N
Don't know .....D
Refused .....R

FIL20:

If you were to use.....0
For 1

Q02D:

écran [modèle 0] -> Q02H

(FIL20) rail, how long would it take you typically to spend setting up the transportation and then waiting for the equipment? That is, the time it takes to locate and order the equipment and have it arrive and available for use? (DAYS) (BLOCK SCREEN) (DAYS) (BLOCK SCREEN)

$E 0 365

Don't know .....D
Refused .....R

Q02H:

(FIL20) rail, how long would it take you typically to spend setting up the transportation and then waiting for the equipment? That is, the time it takes to locate and order the equipment and have it arrive and available for use? (DAYS) (BLOCK SCREEN) (HOURS) (BLOCK SCREEN)

$E 0 72

Don't know .....D
Refused .....R

Q03:

Do you have barge service at this facility (<CITY>, <STATE>).

Yes 1
No.....2 => Q03B
Don't know .....D
Refused .....R

Q03A:

How many barges can you <FIL4> at one time at this site (in <CITY>, <STATE>)? (IWR PROMPT: "Please give us your best estimate")

$E 0 999

Don't know .....D
Refused .....R

Q03B:

How far is it in miles to the nearest barge facility you use or would use? (IWR PROMPT: "Please give us your best estimate") (* * * IWR NOTE: If Barge loading/unloading is located at that facility, enter 0. * * *)

$E 0 3000

Don't know .....D
Refused .....R

FIL21:

If you were to use.....0
For.....1

Q04D:

écran [modèle 0] -> Q04H

(FIL21) barge, how long would it take you typically to spend setting up the transportation and then waiting for the equipment? That is, the time it takes to locate and order the equipment and have it arrive and available for use? (DAYS) (BLOCK SCREEN)

$E 0 365

Don't know .....D
Refused .....R

Q04H:

(FIL21) barge, how long would it take you typically to spend setting up the transportation and then waiting for the equipment? That is, the time it takes to locate and order the equipment and have it arrive and available for use? (HOURS) (BLOCK SCREEN)

$E 0 72

Don't know .....D
Refused .....R

Q05:

Do you use truck services for transporting your product shipment <FIL1> market?

Yes 1
No.....2 => FIL22
Don't know .....D
Refused .....R

Q05A:

How many trucks can you <FIL4> at one time? (IWR PROMPT: "Please give us your best estimate")

$E 0 9999

Don't know .....D
Refused .....R

FIL22:

If you were to use.....0
For.....1

Q06D:

écran [modèle 0] -> Q06H

(FIL22) truck, how long would it take you typically to spend setting up the transportation and then waiting for the equipment? That is, the time it takes to locate and order the equipment and have it arrive and available for use? (DAYS) (BLOCK SCREEN)

$E 0 365

Don't know .....D
Refused .....R

Q06H:

(FIL22) truck, how long would it take you typically to spend setting up the transportation and then waiting for the equipment? That is, the time it takes to locate and order the equipment and have it arrive and available for use? (HOURS) (BLOCK SCREEN)

$E 0 72

Don't know .....D
Refused .....R

Q07:

Shippers of different sizes often face different transportation rates and have decidedly different transportation problems and needs. Next, I'll ask questions that will be used to understand the characteristics of firms of various sizes. Please refer to your current facility location at <CITY>, <STATE >. What is the estimated total dollar value of annual shipments (of <COMM>) <FIL9> at this facility's location? (IWR PROMPT: "Please give us your best estimate")

$E 0 9999999999

Don't know .....D
Refused .....R

Q07A:

Can you give us the total tonnage of your ANNUAL SHIPMENTS (of <COMM>)? (IWR PROMPT: Please give us your best estimate")

$E 0 9999999999

Don't know .....D
Refused .....R

Q08:

Storage capacity has been shown to be a key component to transportation decisions. What is the total dollar value of all (<COMM>) products stored when storage is at full capacity? (IWR PROMPT: "Please give us your best estimate")

$E 0 9999999999

Don't know .....D
Refused .....R

Q08A:

Can you give us the total tonnage of (<COMM>) products stored when your facility is at full capacity? (IWR PROMPT: "Please give us your best estimate")

$E 0 9999999999

Don't know .....D
Refused .....R

Q09:

What is the average value per unit (of the <COMM>) that you <FIL13> on a per unit basis.? (IWR PROMPT: "Please give us your best estimate")

$R.2 0.00 99999.99

Don't know .....D
Refused .....R

Q09A:

(IWR ASK IF NECESSARY: "Is that per. . .")

TONS 1
POUNDS.....2
HUNDRED WEIGHT (cwt.).....3
GALLONS.....4
BUSHELS.....5
SHIPMENT.....6
OR SOME OTHER UNIT OF MEASURE - (Please Specify) 7
Don't know .....D
Refused .....R

Q10:

How many years has this facility been at its current location? (IWR PROMPT: "That is your facility near <CITY>, <STATE>?")

$E 0 999

Don't know ..... D

Refused ..... R

Q11:

How many facilities such as this one does your firm own OR operate? (IWR PROMPT: "Such as your facility near <CITY>, <STATE>?") (ADDITIONAL PROMPT: "Please give us your best estimate.")

$E 0 999

Don't know ..... D

Refused ..... R

Q12:

Does your firm (or parent company) own facilities used to import or export (<COMM>) to and from the United States?

Yes 1

No 2

Don't know ..... D

Refused ..... R

Q13:

Is your company a . . .

COOPERATIVE 1

CORPORATION 2

PRIVATELY OWNED PROPRIETORSHIP 3

OR SOMETHING ELSE - (Please Specify) 4

Don't know ..... D

Refused ..... R

QR1:

What product do you typically sell?

Open Text Box 1

No products given 2

Don't know ..... D

Refused ..... R

QR2:

What do you receive for the product you sell per unit? (IWR PROMPT: "Please give us your best estimate")

$R.2 0.00 99999.99

Don't know ..... D

Refused ..... R

QR3:

(IWR Ask if necessary: "What is the unit of weight or volume for that price? Is it. . .")

Tons.....1
Pounds.....2
Hundred weight (cwt.).....3
Gallon.....4
Bushel.....5
Shipment.....6
Some other unit of measure - (please specify).....7
Don't know.....D
Refused.....R

QS1:

What do you pay for, or what does it cost, to produce per unit, the product you typically ship?

$R.2 0.00 99999.99

Don't know.....D
Refused.....R

QS2:

(IWR Ask if necessary: "What is the unit of weight or volume for that price? Is it. . .")

Tons.....1
Pounds.....2
Hundred weight (cwt.).....3
Gallon.....4
Bushel.....5
Shipment.....6
Some other unit of measure - (please specify).....7
Don't know.....D
Refused.....R

Q14:

The options that you have in shipping are central to the evaluation of transportation needs. Next, I'll ask about a shipment you just <FIL6> and then I'll ask some parallel questions on any options you have. For the following questions, please consider your last typical <FIL5> shipment <FIL17> this facility. What specific commodity (of <COMM>) was shipped? (IWR: THIS ANSWER WILL BE USED IN UPCOMMING QUESTIONS - PLEASE ENTER A SPECIFIC COMMODITY NAME OR NAMES THAT CAN BE REFERENCED IN UPCOMMING QUESTION FILLS)

Q14A:

What city and state was <Q14> <FIL9> <FIL1>? (IWR ENTER CITY HERE AND STATE IN NEXT QUESTION)

Q14B:

(What city and state was <Q14> <FIL9> <FIL1>?) (IWR ENTER STATE ABBREVIATION HERE)

Q15:

What type of <FIL2> is this? Is it a . . .

RIVER TERMINAL 1
DISTRIBUTION CENTER 2
RAILROAD TERMINAL 3
PROCESSING OR FABRICATION PLANT 4
MINE 5
QUARRY 6
SOME OTHER TYPE - (Please Specify) 7
Don't know .....D
Refused .....R

Q16:

Do you have an estimate of how much your last single <FIL3> shipment of <Q14> weighed in tons? (IWR PROMPT: "Please give us your best estimate")

$R.2 0.00 999999.99

Depends on Commodity .....N
Don't know .....D
Refused .....R

Q16A:

What was the payload weight or volume of your last single <FIL3> shipment? (IWR PROMPT: "Please give us your best estimate")

$E 0 999999999

Don't know .....D
Refused .....R

Q16B:

(IWR ASK IF NECESSARY: "What is the unit of weight or volume for that shipment? Is it . . .")

Tons .....1 => Q17A
Pounds .....2 => Q17A
Hundred weight (cwt.) .....3 => Q17A
Gallon 4
Bushel 5
Shipment 6
Some other unit of measure - (please specify) 7
Don't know .....D
Refused .....R

Q16C:

How much does a <Q16B> weigh in pounds?

$E 0 9999

Don't know .....D

Refused .....R

Q17A:

Did you use TRUCK transportation in this last <FIL3> shipment?

Yes 1

No.....2

Don't know .....D

Refused .....R

Q17B:

Did you use RAIL transportation (in this last <FIL3> shipment)?

Yes 1

No.....2

Don't know .....D

Refused .....R

Q17C:

(Did you use) BARGE (transportation in this last <FIL3> shipment)?

Yes 1

No.....2

Don't know .....D

Refused .....R

Q17D:

Did you use any other mode of transportation in this last <FIL3> shipment?

Yes 1

No.....2

Don't know .....D

Refused .....R

MODE1:

TRUCK

.....0

Truck.....1

MODE2:

RAIL

.....0

(and) Rail 1

MODE3:

BARGE

.....0

(and) Barge.....1

MODE4:

OTHER

.....0

(and) <Q17D:O>.....1

Q18A:

What was the distance traveled in miles by TRUCK for this last shipment ? (IWR PROMPT: "Please give us your best estimate")

$E 0 9999

Don't know.....D

Refused .....R

Q18B:

What was the distance traveled in miles by RAIL (for this last shipment)? (IWR PROMPT: "Please give us your best estimate")

$E 0 9999

Don't know.....D

Refused .....R

Q18C:

What was the distance traveled in miles by BARGE (for this last shipment)? (IWR PROMPT: "Please give us your best estimate")

$E 0 9999

Don't know.....D

Refused .....R

Q18D:

What was the distance traveled in miles by <Q17D:O> for this last shipment? (IWR PROMPT: "Please give us your best estimate")

$E 0 9999

Don't know.....D

Refused .....R

SK1:

MUST SKIP Q19 VALIDATION IF ANY OF Q18A-D ARE D OR R RESPONSES.

E_D0:

CALCULATION VARIABLE SUM OF Q18A-D

$E 0 99999

Q20A:

What was the TRUCK rate per unit? (IWR PROMPT: "Please give us your best estimate")

$R.2 0.00 99999.99

Don't know ..... D

Refused ..... R

Q20A1:

(IWR: Ask if necessary. "What was the unit of weight or volume for that shipment? Was it . . .")

Tons 1

Pounds 2

Hundred weight (cwt.) 3

Gallon 4

Bushel 5

Shipment 6

Some other unit of measure - (please specify) 7

Don't know ..... D

Refused ..... R

Q20B:

What was the RAIL rate per unit? (IWR PROMPT: "Please give us your best estimate")

$R.2 0.00 99999.99

Don't know ..... D

Refused ..... R

Q20B1:

(IWR: Ask if necessary. "What was the unit of weight or volume for that shipment? Was it . . .")

Tons 1

Pounds 2

Hundred weight (cwt.) 3

Gallon 4

Bushel 5

Shipment 6

Some other unit of measure - (please specify) 7

Don't know ..... D

Refused ..... R

Q20C:

What was the BARGE rate per unit? (IWR PROMPT: "Please give us your best estimate")

$R.2 0.00 99999.99

Don't know ..... D

Refused ..... R

Q20C1:

(IWR: Ask if necessary. "What was the unit of weight or volume for that shipment? Was it . . .")

Tons.....1
Pounds.....2
Hundred weight (cwt.).....3
Gallon.....4
Bushel.....5
Shipment.....6
Some other unit of measure - (please specify).....7
Don't know.....D
Refused.....R

Q20D:

What was the <Q17D:O> rate per unit? (IWR PROMPT: "Please give us your best estimate")

$R.2 0.00 99999.99
Don't know.....D
Refused.....R

Q20D1:

(IWR: Ask if necessary. "What was the unit of weight or volume for that shipment? Was it . . .")

Tons.....1
Pounds.....2
Hundred weight (cwt.).....3
Gallon.....4
Bushel.....5
Shipment.....6
Some other unit of measure - (please specify).....7
Don't know.....D
Refused.....R

Q21:

From your answers, the total transport cost for this shipment is about (ETOT0) dollars. Is this correct? (IWR: FIGURE CHECK:

Yes - Continue.....1		=> Q24D
Return to Q20A and make corrections.....2		=> /Q20A
No, continue without corrections.....3		=> Q22
Don't know.....D		=> Q22
Refused.....R		=> Q22

Q22:

What was the total transport cost? (IWR PROMPT: "Please give us your best estimate")
$R.2 0.00 99999999.99
Don't know .....D => Q24D
Refused .....R => Q24D

SK2:

SKIP VERIFICATION IF ANY OF Q18A-D IS D OR R

TR1:

R.5 0.00000 99.99999

TR2:

R.5 0.00000 99.99999

RRW:

.....0
.....1

RR0:

R.5 0.00000 99.99999

RR1:

R.5 0.00000 99.99999

RR2:

R.5 0.00000 99.99999

BR1:

R.5 0.00000 99.99999

BR2:

R.5 0.00000 99.99999

COST1:

COST FOR TRUCK
$R.2 0.00 99999999.99

COST2:

PREDICTED COST FOR RAIL
$R.2 0.00 99999999.99

COST3:

PREDICTED COST FOR BARGE
$R.2 0.00 99999999.99

PRATE:

PREDICTED RATE
$R.0 0.00 99999999.99

CHECK:

WEIGHT: <Q16> DISTANCE: TRUCK <Q18A> RAIL <Q18B> BARGE <Q18C> OTHER <Q18D> br1 <BR1> BR2 <BR2> TRUCK COST <COST1> RAIL COST <COST2> BARGE COST <COST3> PREDICTED RATE <PRATE>

Continue.....1

E_CU0:

If total cost answer is greater than 200% or less than 20% of predicted cost, go to Q23, else skip to Q24

Q23:

We expected your transport cost to be about <PRATE> dollars. Can you tell us if there was anything unusual about this shipment? (IWR Note: Q22 answer: <Q22> Predicted answer (PRATE): <PRATE>)

Open Text Box.....1
No - Continue Without Corrections.....2
Return and Change Answers.....3 => /Q22
Don't know.....D
Refused.....R

Q24D:

écran [modèle 0] -> Q24H

Shipment time is sometimes a problem for shippers. From the time the equipment becomes available to how long it takes to transport the commodity to the final destination, what do you estimate was the shipment time (in days and hours)? (DAYS) (BLOCK SCREEN)

$E 0 365

Don't know.....D
Refused.....R

Q24H:

Shipment time is sometimes a problem for shippers. From the time the equipment becomes available to how long it takes to transport the commodity to the final destination, what do you estimate was the shipment time (in days and hours)? (HOURS) (BLOCK SCREEN)

$E 0 72

Don't know.....D
Refused.....R

SK3:

E_SH0:

CALCULATE SHIPMENT HOURS
$E 0 99999

PTRK:

MODE FOR TRUCK
$R.2 0 999.99
0.....0
1.....1

PRAIL:

MODE RAIL
$R.2 0 999.99
0.....0
1.....1

PBRG:

BARGE COST
$R.2 0 999.99

PTIME:

PREDICTED TIME
$R.2 0 999.99

SK4:

If total shipping time is greater than 200% or less than 20% of predicted time, go to Q25, else skip to Q26

Q25:

We estimated the shipment time to be <PTIME> hours. Can you tell us if there was anything unusual about this shipment? (IWR Respondent answers: Days: <Q24D> Hours: <Q24H>) Q18A <Q18A> Q18B <Q18B> E_D0 <E_D0>

Open Text Box.....1
Estimate is reasonable.....2
Return to Q24D and correct answers.....3 => /Q24D
Don't know.....D
Refused.....R

Q26:

Reliability of on-time arrivals can be another concern. For shipments like this one, what percent of the time do you expect them to arrive on time? (IWR PROMPT: "Please give us your best estimate")

$E 0 100

Don't know .....D
Refused .....R

Q28:

How much did you <FIL18> for the <Q14> per unit <FIL1> this <FIL2>? (IWR PROMPT: "Please give us your best estimate")

$R.2 0.00 99999.99

Don't know .....D
Refused .....R

Q28A:

(IWR Ask if necessary: "What is the unit of weight or volume for that price? Is it. . .")

Tons.....1
Pounds.....2
Hundred weight (cwt.) 3
Gallon.....4
Bushel 5
Shipment 6
Some other unit of measure - (please specify).....7
Don't know .....D
Refused .....R

Q30B:

Is this a transaction that is internal to your company or is it external?

Internal (within your company) 1
external (involving another company) 2
Don't know .....D
Refused .....R

ALTIN:

Please consider all alternative ways of handling your last shipment, either by <FIL14> it by a different transportation mode, or transporting it <FIL1> a different <FIL2> or both.

Press ENTER to Continue 1

Q31:

As a reminder, you have told us specifically in this last shipment you <FIL8> <Q14> <FIL1> <Q14A>, <Q14B> by <MODE1> <MODE2> <MODE3> <MODE4>. Could this commodity have been <FIL9> by an alternative mode or set of modes <FIL1> the <FIL2>?

Yes 1
No.....2
Don't know .....D
Refused .....R

Q32:

Could you have <FIL8> <Q14> <FIL1> some other location?

Yes 1
No.....2
Don't know .....D
Refused .....R

SK5:

Q34:

Does this mean you could not <FIL13> <FIL1> any other locations or that you have no other transportation mode options or both?

Could not <FIL13> <FIL1> other locations 1
Do not have other transportation modes 2
Both.....3
Don't know .....D
Refused .....R

Q35:

Please explain.

Open Text Box.....1
Don't know .....D
Refused .....R

Q36:

If rates are increased to where your firm would choose to not make that shipment, would your establishment go out of business or cease operations at this location?

Yes 1
No.....2
Don't know .....D
Refused .....R

SK6:

SKIP FOR R'S WITH NO SHIPPING ALTERNATIVES

Q37I:

BEGIN ALTERNATIVE CONTACT ROSTER FILL FOR "BEST" OR "NEXT BEST" ALTERNATIVE

next best 0
BEST 1

Q37A:

Please tell me your <Q37I> alternative for <FIL12> this commodity. First, what transportation mode would you use? Would you say you use Truck, Rail, Barge or some combination of those?

Truck only 1
Rail only 2
Barge only 3
Truck and rail 4
Truck and barge 5
Rail and barge 6
Truck, rail, and barge 7
Or some other mode - (Please Specify) 8
No other profitable options .....N => QDEC
Don't know .....D
Refused .....R

MOD1R:

TRUCK

.....0
Truck 1

MOD2R:

RAIL

.....0
(and) Rail 1

MOD3R:

BARGE

.....0
(and) Barge 1

MOD4R:

OTHER

.....0
(and) <Q17D:O> 1

Q37B:

What <FIL2> would you use?

Same <FIL2> 1
Different <FIL2> - Please Specify.....2
Don't know .....D
Refused .....R

Q38:

What type of <FIL2> is this? It is a. . .

RIVER TERMINAL.....1
DISTRIBUTION CENTER.....2
RAILROAD TERMINAL 3
PROCESSING OR FABRICATION PLANT.....4
MINE 5
QUARRY.....6
OR SOME OTHER TYPE - (Please Specify) 7
Don't know .....D
Refused .....R

Q39:

Do you have an estimate of how much this <FIL3> shipment of <Q14> would weigh in tons? (IWR PROMPT: "Please give us your best estimate")

$R.2 0.00 999999.99

Depends on Commodity .....N
Don't know .....D
Refused .....R

Q39A:

How large in weight or volume would this <FIL3> shipment be? (IWR PROMPT: "Please give us your best estimate") (IWR: IF THE RESPONDENT TELLS YOU IT IS THE SAME WEIGHT AND UNIT AS ALREADY ANSWERED PLEASE ENTER: WEIGHT: <Q16> UNIT: <Q16A>)

$R.2 0.00 999999.99

Don't know .....D
Refused .....R

Q39B:

(IWR ASK IF NECESSARY: "What would be the unit of weight or volume for that shipment? Is it . . .") (IWR: IF THE RESPONDENT TELLS YOU IT IS THE SAME WEIGHT AND UNIT AS ALREADY ANSWERED PLEASE ENTER: WEIGHT: <Q16> UNIT: <Q16A>; <Q16A:O>)

Tons.....1
Pounds.....2
Hundred weight (cwt.).....3
Gallon.....4
Bushel.....5
Shipment.....6
Some other unit of measure - (please specify).....7
Don't know.....D
Refused.....R

Q40A:

What would be the distance traveled by TRUCK? (IWR PROMPT: "Please give us your best estimate")

$E 0 9999

Don't know.....D
Refused.....R

Q40B:

What would be the distance traveled by RAIL? (IWR PROMPT: "Please give us your best estimate")

$E 0 9999

Don't know.....D
Refused.....R

Q40C:

What would be the distance traveled by BARGE? (IWR PROMPT: "Please give us your best estimate")

$E 0 9999

Don't know.....D
Refused.....R

Q40D:

What would be the distance traveled by <Q37A:O>, (the other transportation mode)? (IWR PROMPT: "Please give us your best estimate")

$E 0 9999

Don't know.....D
Refused.....R

SK7:

SKIP IF ANY OF Q40A-D IS D OR R

E_D1:
CALCULATE TOTAL MILES SHIPPED
$E 0 99999

Q41A:
What would be the TRUCK rate per unit of WEIGHT or VOLUME? (IWR PROMPT: "Please give us your best estimate")
$R.2 0.00 99999.99
Don't know .....D
Refused .....R

Q41A1:
(IWR: Ask if necessary. "What would be the unit of weight or volume for that shipment? Would it be . . .")
Tons.....1
Pounds.....2
Hundred weight (cwt.) 3
Gallon.....4
Bushel 5
Shipment 6
Some other unit of measure - (please specify).....7
Don't know .....D
Refused .....R

Q41B:
What would be the RAIL rate per unit of WEIGHT or VOLUME? (IWR PROMPT: "Please give us your best estimate")
$R.2 0.00 99999.99
Don't know .....D
Refused .....R

Q41B1:
(IWR: Ask if necessary. "What would be the unit of weight or volume for that shipment? Would it be . . .")
Tons.....1
Pounds.....2
Hundred weight (cwt.) 3
Gallon.....4
Bushel 5
Shipment 6
Some other unit of measure - (please specify).....7
Don't know .....D
Refused .....R

Q41C:

What would be the BARGE rate per unit of WEIGHT or VOLUME? (IWR PROMPT: "Please give us your best estimate")

$R.2 0.00 99999.99

Don't know .....D
Refused .....R

Q41C1:

(IWR: Ask if necessary. "What would be the unit of weight or volume for that shipment? Would it be . . .")

Tons.....1
Pounds.....2
Hundred weight (cwt.) 3
Gallon.....4
Bushel 5
Shipment 6
Some other unit of measure - (please specify).....7
Don't know .....D
Refused .....R

Q41D:

What would be the <Q37A:O>rate per unit of WEIGHT or VOLUME? (IWR PROMPT: "Please give us your best estimate")

$R.2 0.00 99999.99

Don't know .....D
Refused .....R

Q41D1:

(IWR: Ask if necessary. "What would be the unit of weight or volume for that shipment? Would it be . . .")

Tons.....1
Pounds.....2
Hundred weight (cwt.) 3
Gallon.....4
Bushel 5
Shipment 6
Some other unit of measure - (please specify).....7
Don't know .....D
Refused .....R

Q42:

From your answers, the total transport cost for this shipment is about (ETOT1) dollars. Is this correct? (IWR: FIGURE CHECK:

Yes - Continue	1	=> Q45D
Return to Q40A and make corrections	2	=> Q40A
No, continue without corrections	3	=> Q43
Don't know	D	=> Q43
Refused	R	=> Q43

Q43:

What would be the total transport cost? (IWR PROMPT: "Please give us your best estimate")

$R.2 0.00 99999999.99

Don't know	D
Refused	R

SK8:

SKIP VERIFICATION IF ANY OF Q40A-D IS D OR R

TR1_R:

R.5 0.00000 99.99999

TR2_R:

R.5 0.00000 99.99999

RRW_R:

	0
	1

RR0_R:

R.5 0.00000 99.99999

RR1_R:

R.5 0.00000 99.99999

RR2_R:

R.5 0.00000 99.99999

BR1_R:

R.5 0.00000 99.99999

BR2_R:

R.5 0.00000 99.99999

CST1R:

COST FOR TRUCK
$R.2 0.00 99999999.99

CST2R:

PREDICTED COST FOR RAIL
$R.2 0.00 99999999.99

CST3R:

PREDICTED COST FOR BARGE
$R.2 0.00 99999999.99

PRATR:

PREDICTED RATE
$R.0 0.00 99999999.99

CHK_R:

WEIGHT: <Q39> DISTANCE: TRUCK <Q40A> RAIL <Q40B> BARGE <Q40C> <Q37A:O> <Q40D> TRUCK COST <CST1R> RAIL COST <CST2R> BARGE COST <CST3R> PREDICTED RATE <PRATR>

Continue.....1

E_CU1:

If total cost answer is greater than 200% or less than 20% of estimate, go to Q44, else skip to Q45D

Q44:

We would expect your transport cost would be about <PRATR> dollars. Can you tell me if there would be anything unusual about this shipment? (IWR Note: Q43 answer: <Q43> Predicted answer (PRATR): <PRATR>)

Open Text Box.....1
No - Continue Without Corrections.....2
Return and Change Answers.....3 => /Q41A
Don't know.....D
Refused.....R

Q45D:

écran [modèle 0] -> Q45H

Shipment time is sometimes a problem for shippers. From the time the equipment becomes available to how long would it take to transport the commodity to the final destination, what do you estimate the shipment time would be (in days and hours)? (DAYS) (BLOCK SCREEN)

$E 0 365

Don't know.....D
Refused.....R

Q45H:

Shipment time is sometimes a problem for shippers. From the time the equipment becomes available to how long would it take to transport the commodity to the final destination, what do you estimate the shipment time would be (in days and hours)? (HOURS) (BLOCK SCREEN)

$E 0 72

Don't know .....D

Refused .....R

SK9:

E_SH1:

CALCULATE SHIPMENT HOURS

$E 0 99999

PTR_R:

TIME FOR TRUCK

$R.2 0 999.99

0.....0

1.....1

PRR_R:

TIME FOR RAIL

$R.2 0 999.99

0.....0

1.....1

PBR_R:

TIME FOR BARGE

$R.2 0 999.99

PTM_R:

PREDICTED TIME

$R.2 0 999.99

SK10:

Q46:

We estimate the shipment time would be <PTM_R> hours. Can you tell me if there would be anything unusual about this shipment? (IWR Respondent answers: Days: <Q45D> Hours: <Q45H>) Q18A <Q40A> Q18B <Q40B> E_D1 <E_D1>

Open Text Box.....1
Estimate is reasonable.....2
Return and Change Answers.....3 => /Q45D
Don't know.....D
Refused.....R

Q47:

Reliability of on-time arrivals can be another concern. For shipments like this one, what percent of the time would you expect them to arrive on time? (IWR PROMPT: "Please give us your best estimate")

$E 0 100

Don't know.....D
Refused.....R

Q49:

How much would you <FIL18> for the <Q14> per unit <FIL1> this <FIL2>? (IWR PROMPT: "Please give us your best estimate")

$R.2 0.00 99999.99

Don't know.....D
Refused.....R

Q49A:

(IWR Ask if necessary: "What would be the unit of weight or volume for that price? Is it. . .")

Tons.....1
Pounds.....2
Hundred weight (cwt.).....3
Gallon.....4
Bushel.....5
Shipment.....6
Some other unit of measure - (please specify).....7
Don't know.....D
Refused.....R

Q52:

Would this be a transaction that is internal to your company or would it be external?

Internal (within your company).....1
external (involving another company).....2
Don't know.....D
Refused.....R

Q53:

Could you still make a profit with this transportation alternative?

Yes	1	
No	2	=> QDEC
Don't know	D	=> QDEC
Refused	R	=> QDEC

QDEC:

SET ROSTER POSITION TO 1 IN ORDER TO PULL BEST ALTERNATIVE.

Q107I:

Next, we want to know how you might react to rate and service changes. In the following questions relating to prices, rates and service changes, please regard the changes as permanent changes and also that all other factors (prices of products, mode, etc.) are the same as before the change. Also, if you indicated that you had no options, please consider "out-of-business" as an alternative. From earlier answers, you stated that your best alternative was: Mode: <Q37A> (or <Q37A:O>) <FIL1> <FIL2> of <Q37B> (or <Q37B:O>)

Press ENTER to Continue 1

Q107:

For your last shipment of <Q14>, if the TRANSPORTATION RATE INCREASED <PC1>%, would you continue with the original option or switch to your best alternative choice. All other factors remain the same as before. (IWR: BEST ALTERNATIVE CHOICE IS: Mode: <Q37A> (or <Q37A:O>) <FIL1> <FIL2> of <Q37B> (or <Q37B:O>)

Continue to use Original mode	1
Switch to Best Alternative Choice	2
Go out-of-business	3
Don't know	D
Refused	R

Q108:

For your last shipment, if the TRANSPORTATION RATE associated with your best ALTERNATIVE were to DECREASE <PC2>%, would you continue with the original option or switch to your best alternative choice? (IWR: BEST ALTERNATIVE CHOICE IS: Mode: <Q37A> (or <Q37A:O>) <FIL2> of <Q37B> (or <Q37B:O>)

Continue to use Original mode	1
Switch to Best Alternative Choice	2
Go out-of-business	3
Don't know	D
Refused	R

Q109:

For your last shipment, if the <FIL15> for the product <FIL16> by <PC3>%, would you continue with the original mode and <FIL2> or switch to an alternative <FIL2>, perhaps, by an alternative mode?

Continue to use Original mode 1
Switch to Best Alternative Choice.....2
Go out-of-business.....3
Don't know.....D
Refused .....R

Q110:

For your last shipment, if the TRANSIT TIME, including scheduling and wait for equipment, for the original option INCREASED <PC4>%, would you continue with the original mode and destination or switch to your best alternative? (IWR: BEST ALTERNATIVE CHOICE IS: Mode: <Q37A> (or <Q37A:O>) <FIL2> of <Q37B> (or <Q37B:O>)

Continue to use Original mode 1
Switch to Best Alternative Choice.....2
Go out-of-business.....3
Don't know.....D
Refused .....R

Q111:

For your last shipment, if the reliability, (percentage of time shipments arrived on-time), of the original option decreased <PC5> percentage points, would you continue with the original mode and destination or switch to your best alternative? (IWR: BEST ALTERNATIVE CHOICE IS: Mode: <Q37A> (or <Q37A:O>) <FIL2> of <Q37B> (or <Q37B:O>)

Continue to use Original mode 1
Switch to Best Alternative Choice.....2
Go out-of-business.....3
Don't know.....D
Refused .....R

Q112:

Now we need similar information on your ANNUAL volumes shipped. Based on your experience, we will ask for the change in volumes in response to changes in price, rate, time, and reliability given all other variables are held constant at the values you reported earlier. If the average TRANSPORTATION RATES INCREASED by <PC6> percent, and the change applied to BOTH you and your competitors, would your ANNUAL shipping volumes decrease?

Yes 1
No.....2 => Q113
Don't know.....D => Q113
Refused .....R => Q113

Q112A:

By how much would the ANNUAL volume DECREASE (assuming the rate increase applies to BOTH YOU AND YOUR COMPETITORS)? (IWR NOTE: Answer should be a percentage.)

$E 0 100

Don't know .....D

Refused .....R

Q113:

If TRANSPORTATION RATES INCREASED by <PC7> percent, and the change applied to you BUT NOT to your competitors, would your ANNUAL shipping volumes decrease?

Yes 1

No.....2 => Q114

Don't know .....D => Q114

Refused .....R => Q114

Q113A:

By how much would the ANNUAL volume DECREASE, assuming the rate increase applies ONLY TO YOU and NOT to your competitors?

$E 0 99999

Don't know .....D

Refused .....R

Q114:

If the average price you <FIL11> for the product you <FIL10> INCREASED by <PC8> percent, and the change applied to BOTH you and your competitors, would your ANNUAL volume shipped <FIL19>?

Yes 1

No.....2 => Q115

Don't know .....D => Q115

Refused .....R => Q115

Q114A:

By how much would the ANNUAL volume <FIL19>, assuming the rate increase applies to BOTH YOU AND TO YOUR COMPETITORS?

$E 0 99999

Don't know .....D

Refused .....R

Q115:

If the average time in transit INCREASED by <PC9>% would your ANNUAL volume decrease?

Yes 1

No.....2 => Q116

Don't know .....D => Q116

Refused .....R => Q116

Q115A:

By how much would the ANNUAL volume DECREASE?
$E 0 99999
Don't know .....D
Refused .....R

Q116:

If the average reliability of shipments DECREASED by <PC10> percentage points, would your ANNUAL volume decrease?

Yes	1	
No	2	=> Q117
Don't know	D	=> Q117
Refused	R	=> Q117

Q116A:

By how much would the ANNUAL volume DECREASE?
$E 0 99999
Don't know .....D
Refused .....R

Q117:

That's my last question. I really want to thank you for the time you have spent with me today. If you have any additional comments about transportation needs, I can note them now.

Comments 1
No Comments 2

NOTES:

procédure 8 -> NOTES
*** F5 Notes ***
Press "ENTER" to continue 1

F6:

procédure 1 -> F6
*** Data Corrections *** Interviewer: To note a data correction please type in the variable name (Example: Q##) then the wrong answer, then the correct answer. Example: If you want the data manager to change Q22 from the D currently there to 4000.00, then you would put the following: Q22, D, 4000.00 If any of these pieces of information are missing, the data correction may not be able to be completed. <F6:O>

Enter Data Correction 1

F9:

procédure 4 -> F9

*** Sample Information *** Company Name: <CMPNY> Address: <ADDR1> City: <CITY> State: <STATE> Phone: <PHONE> Commodity: <COMM> Shipper/Receiver: <SHPRC> F9 Notes: <F9:O>

Continue without making changes.....1
Edit/enter call back notes.....2

F7:

procédure 2 -> F7

*** Definitions *** Aggregates: Sand, gravel, crushed rock and other bulk materials used by the construction industry. Sometimes large stones are classified in this group.

Continue.....1

F8:

procédure 3 -> F8

*** Frequently Asked Questions (FAQ) *** —How did you get my name? Your name and address was selected from businesses with certain NAICS codes who are located on or near the Ohio River or in the Ohio River Basin. The Dun and Bradstreet listing of businesses was the primary source for the sample. —What is the purpose of this study? The purpose of the survey is to evaluate the transportation modes and freight costs associated with shipping commodities and to determine the investment costs needed to maintain and/or improve these transportation routes. —Who is sponsoring this study? The study is funded by the Washington State University School of Economic Sciences and the US Army Corps of Engineers. —Who are you? Who is conducting this interview? I am a (student/resident of Pullman, Washington) working part-time for the Social and Economic Sciences Research Center (SESRC) at Washington State University. —How will my answers be used and will they be kept confidential? The information you provide will give planners the necessary information to make critical decisions on investments for providing safe and productive transportation routes. —Who can I contact with questions or to verify the legitimacy of this study? I would be glad to give you the telephone number for someone whom you can tell you more about the study. Kent Miller at the Social & Economic Sciences Research Center can be reached at 800-833-0867 or kjmiller@wsu.edu Wes Wilson at the University of Oregon, the lead researcher for the US Army Corps of Engineers, can be reached at 541-346-4690 or wwilson@uoregon.edu Can I complete the survey online or by mail? Yes, you can log on to http://opinion.wsu.edu/OhioRiver (give respondent his/her access code) to complete the survey. —Who can I contact about my rights? If you have any questions concerning your rights about participating in this project, please contact 509-335-3668 and ask for the IRB Coordinator or email irb@wsu.edu —Is this confidential? Yes. Your name and telephone number will be removed from the data base after the survey is completed. Also, because we conduct many surveys maintaining confidentiality is extremely important to the success of our research center. Therefore, we are very careful to protect your privacy. —R is registered on the do not call list The Do Not Call list applies to sales or telemarketing calls only. We are not selling anything and our sole purpose for calling is to conduct a survey to gather information and opinions for decision makers. Your opinions are extremely valuable and we would really appreciate your help with this project. (If R has additional question about the FCC regulations have them contact the Study Director at 800-833-0867)

Continue.....1

F10:

procédure 5 -> F10

*** Refusal Prevention screen *** The results will be used to provide a better understanding of transportation investments by the federal government so any information you can share with us is very helpful to the study. If it is more convenient, you can complete the survey online at www.opinion.wsu.edu/ohioriver and your access code is <idnum>

Yes, will continue survey.....1
Will do later -- Set Call-Back .....2 => /INT01
Still refuses (set skip to refusal int screen) .....3 => /REFUS

ALTR:

procédure 7 -> RQE

Request for results. Name

RQA:

Request for results Street Address

RQC:

Request for results City

RQS:

Request for results State

RQZ:

Request for results Zip

RQE:

Request for results E-mail

F11:

procédure 6 -> F11

NAME:

May I please confirm your / his / her first name so that I will know who to ask for when I call back? (Sample name is: insert fill here)

CB:

When will be a convenient time to call-back?
$CHS

Paper Questionnaire

2007 Transportation Needs Survey

«CMPNY»
Attention: Logistics/Shipping Manager
«ADDR1»
«city»«state»«zip»

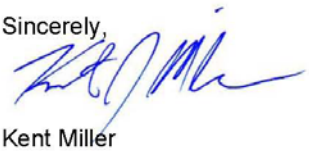
Transportation rates and service are central to the competitiveness of businesses. Transportation is becoming expensive and delayed at times, and there is significant need for investment in highways, railroads, and waterways. Federal and state agencies are typically mandated to assess the costs and benefits of investments. These assessments require information on the ways you send or receive commodities and the options that you have.

The study is being conducted by the Social and Economic Sciences Research Center at Washington State University with support from the federal government. This survey is also being implemented with the knowledge and endorsement of Waterways Council, Inc. All information will be held in the strictest confidence. The results will be used to provide a better understanding of transportation investments by the federal government.

We are centrally interested in transportation movements that could involve or are affected by the waterways and railways. Our assessment of your company suggests that the type of traffic you move and your location may involve these modes or could involve these modes, perhaps through a truck or rail connection. If you have any questions regarding this study, please call 1-800-833-0867 or email SESRCweb3@wsu.edu and mention the "Transportation Demand Study". If you prefer, this survey can also be completed online at **www.opinion.wsu.edu/OhioRiver**. Your access code is **«IDNUM»**

Thank you very much for helping with this study. Your input to this survey is essential!

Sincerely,



Kent Miller
Study Director

PS. This survey has been reviewed and approved by the Washington State University Institutional Review Board (IRB) for the protection of human subjects and the Office of Management and Budget (OMB control number 0710-0001). If you have any questions about your rights as a survey participant, please contact the IRB office at 509-335-3668 or irb@wsu.edu. (IRB# 9892)

What is your job title? _____

What is your facility location? _____ city _____ state

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-2-

Transportation Options

Q1. Do you have rail service at this facility at «CITY», «STATE»?

1 Yes → **What is your rail car siding capacity?** _____ # of cars
2 No

Q2. How far is it in miles to the nearest rail facility you use or would use?

_____ miles

Q3. Do you have barge service at this facility?

1 Yes → **How many barges can you unload at one time at this site?** _____ # of barges
2 No

Q4. How far is it in miles to the nearest barge facility you use or would use?

_____ miles

Q5. Do you use truck services for transporting your product shipment from market?

1 Yes → **How many trucks can you unload at one time?** _____ # of trucks
2 No

Your Last Shipment

Q6. The options that you have in shipping are central to the evaluation of transportation needs. The first questions ask about a shipment you just received and the next questions ask some parallel questions on your next best option. For the following questions, please consider your last "typical" incoming shipment to this facility. What specific commodity was shipped?

_____ Commodity

Q7. What city and state was this commodity received from?

_____ City _____ State

Q8. What type of origin is this?

1 River terminal
2 Distribution center
3 Railroad terminal
4 Processing or fabrication plant
5 Mine
6 Quarry
7 Some other type - (please specify): _____

-3-

Q9. Do you have an estimate of how much your last single inbound shipment of this commodity weighed in tons?

_____ weight in tons

☐ Don't Know →

Q10. If tons is not available, what was the payload weight or volume of your last single inbound shipment and please specify the unit?

_____ weight or volume

Please specify unit

1	tons	5	bushels
2	pounds	6	shipment
3	hundred weight (cwt)	7	some other unit (specify): _____
4	gallons		

Q11. Did you use any of the following transportation modes in this last inbound shipment? *(If this shipment is internal to your firm, please indicate the rate you would expect to pay if you used an external company.)*

Mode	Check if used	*If checked* Distance	*If checked* Rate per Unit	*Specify* Unit
Truck	☐	_____ miles	_____ $ per unit	_____
Rail	☐	_____ miles	_____ $ per unit	_____
Barge	☐	_____ miles	_____ $ per unit	_____
Other _____ (specify)	☐	_____ miles	_____ $ per unit	_____

1 tons	5 bushels
2 pounds	6 shipment
3 hundred weight (cwt)	7 other unit (specify): _____
4 gallons	

Q12. What was the total transport cost?

_____ $ total transport cost

Q13. Shipment time is sometimes a problem for shippers. From the time the equipment becomes available to how long it takes to transport the commodity to the final destination, what do you estimate was the shipment time (in days and hours)?

_____ days _____ hours

Q14. How long does it typically take you to set up the transportation for a shipment like this (include the time it takes to locate and order the equipment and have it arrive and available for use)?

_____ days _____ hours

Q15. Reliability of on-time arrivals can be another concern. For shipments like this one, what percent of the time do you expect them to arrive on time?

_____ percent

-4-

Q16. How much did you pay for this commodity per unit from this origin?

_____ $ per unit
Please specify unit

1 tons
2 pounds
3 hundred weight (cwt)
4 gallons
5 bushels
6 shipment
7 some other unit (specify): _____

Q17. Is this a transaction that is internal to your company or is it external?

1 Internal (within your company)
2 External (involving another company)

Shipping Options

Please consider all alternative ways of handling your last shipment, either by receiving it by a different transportation mode, or transporting it from a different origin or both.

Q18. Could this commodity have been received by an alternative mode or set of modes from the origin?

1 Yes
2 No

Q19. Could you have received this commodity from some other location?

1 Yes
2 No

If yes to either Q18 or Q19, skip to Q23, otherwise continue with Q20 .

Q20. If you answered no to both Q18 and Q19, does this mean you could not receive from any other locations or that you have no other transportation mode options or both?

1 Could not receive from other locations
2 Do not have other transportation modes
3 Both

Q21. What are the reasons that you have no other options?

_____

Q22. If you report that you have no options (no to both Q18 and Q19), and if rates are increased to where your firm would choose to not make that shipment, would your establishment go out of business or cease operations at this location?

1 Yes → **Skip to Q35, page 7**
2 No → **Continue to Q23, page 6**

-5-

First Shipping Alternative

Q23. Please tell me your best alternative for receiving this commodity. First, what origin would you use?

1 Same origin
2 Different origin - Please Specify: _____ city _____ state

Q24. What type of origin is this?

1 River terminal
2 Distribution center
3 Railroad terminal
4 Processing or fabrication plant
5 Mine
6 Quarry
7 Some other type - (please specify): _____

Q25. Do you have an estimate of how much your last single inbound shipment of this commodity weighed in tons?

_____ weight in tons
☐ Don't Know →

Q26. If tons is not available, what was the payload weight or volume of your last single inbound shipment and please specify the unit?

_____ weight or volume

Please specify unit
1 tons
2 pounds
3 hundred weight (cwt)
4 gallons
5 bushels
6 shipment
7 some other unit (specify): _____

Q27. Did you use any of the following transportation modes in this last inbound shipment? *(If this shipment is internal to your firm, please indicate the rate you would expect to pay if you used an external company.)*

Mode	Check if used	*If checked* Distance	*If checked* Rate per Unit	*Specify* Unit
Truck	☐	_____ miles	_____ $ per unit	_____
Rail	☐	_____ miles	_____ $ per unit	_____
Barge	☐	_____ miles	_____ $ per unit	_____
Other _____ (specify)	☐	_____ miles	_____ $ per unit	_____

Q28. What was the total transport cost?
_____ $ total transport cost

1 tons
2 pounds
3 hundred weight (cwt)
4 gallons
5 bushels
6 shipment
7 other unit (specify): _____

Q29. Shipment time is sometimes a problem for shippers. From the time the equipment becomes available to how long it would take to transport the commodity to the final destination, what do you estimate the shipment time would be (in days and hours)?

_____ days _____ hours

-6-

Q30. How long would it typically take you to set up the transportation for a shipment like this (include the time it takes to locate and order the equipment and have it arrive and available for use)?

_____ days _____ hours

Q31. Reliability of on-time arrivals can be another concern. For shipments like this one, what percent of the time would you expect them to arrive on time?

_____ percent

Q32. How much would you pay for this commodity per unit from this origin? *(If this shipment is internal to your firm, please indicate the rate you would expect to pay if you used an external company.)*

_____ $ per unit
Please specify unit

1 tons
2 pounds
3 hundred weight (cwt)
4 gallons
5 bushels
6 shipment
7 some other unit (specify): _____

Q33. Would this be a transaction that is internal to your company or would it be external?

1 Internal (within your company)
2 External (involving another company)

Q34. Could you still make a profit with this transportation alternative?

1 Yes → **Please complete the alternatives table on page 11 and then continue with Q35 on this page**
2 No

Rate and Service Changes

Next, we want to know how you might react to rate and service changes. In the following questions relating to prices, rates and service changes, please regard the changes as permanent changes and also that all other factors (prices of products, mode, etc.) are the same as before the change. Also, if you indicated that you had no options, please consider "out-of-business" as an alternative

Q35. For your last shipment of this commodity, if the TRANSPORTATION RATE INCREASED «pc1»%, would you continue with the original option or switch to your best alternative choice. *All other factors remain the same as before*

1 Continue to use Original mode
2 Switch to Best Alternative Choice
3 Go out-of-business

Q36. For your last shipment, if the TRANSPORTATION RATE associated with your best ALTERNATIVE were to DECREASE «pc2»%, would you continue with the original option or switch to your best alternative choice?

1 Continue to use Original mode
2 Switch to Best Alternative Choice
3 Go out-of-business

Q37. For your last shipment, if the price you pay for the product increased by «pc3»%, would you continue with the original mode and origin or switch to an alternative origin, perhaps, by an alternative mode?

1 Continue to use Original mode
2 Switch to Best Alternative Choice
3 Go out-of-business

-7-

Q38. For your last shipment, if the TRANSIT TIME, including scheduling and wait for equipment, for the original option INCREASED «pc4»%, would you continue with the original mode and destination or switch to your best alternative?

1 Continue to use Original mode
2 Switch to Best Alternative Choice
3 Go out-of-business

Q39. For your last shipment, if the reliability, (percentage of time shipments arrived on-time), of the original option decreased «pc5» percentage points, would you continue with the original mode and destination or switch to your best alternative?

1 Continue to use Original mode
2 Switch to Best Alternative Choice
3 Go out-of-business

Q40. Now we need similar information on your ANNUAL volumes shipped. Based on your experience, we will ask for the change in volumes in response to changes in price, rate, time, and reliability given all other variables are held constant at the values you reported earlier. If the average TRANSPORTATION RATES INCREASED by «pc6»%, and the change applied to BOTH you and your competitors, would your ANNUAL shipping volumes decrease?

1 Yes
2 No → **Skip to 42**

Q41. By how much would the ANNUAL volume DECREASE *(assuming the rate increase applies to BOTH YOU AND YOUR COMPETITORS)***?**

_____ % annual volume decrease

Q42. If TRANSPORTATION RATES INCREASED by «pc7»%, and the change applied to you BUT NOT to your competitors, would your ANNUAL shipping volumes decrease?

1 Yes
2 No → **Skip to 44**

Q43. By how much would the ANNUAL volume DECREASE, assuming the rate increase applies ONLY TO YOU and NOT to your competitors?

_____ % annual volume decrease

Q44. If the average price you paid for the product you buy INCREASED by «pc8»%, and the change applied to BOTH you and your competitors, would your ANNUAL volume shipped decrease?

1 Yes
2 No → **Skip to 46**

Q45. By how much would the ANNUAL volume decrease, assuming the rate increase applies to BOTH YOU AND TO YOUR COMPETITORS?

_____ % annual volume decrease

Q46. If the average time in transit INCREASED by «pc9»% would your ANNUAL volume decrease?

1 Yes
2 No → **Skip to 47**

Q47. By how much would the ANNUAL volume DECREASE?

_____ % annual volume decrease

-8-

Q48. If the average reliability of shipments DECREASED by «pc10» percentage points, would your ANNUAL volume decrease?

1 Yes
2 No → **Skip to 50**

Q49. By how much would the ANNUAL volume DECREASE?

_____ % annual volume decrease

Firm Characteristics

Shippers of different sizes often face different transportation rates and have decidedly different transportation problems and needs. The next questions will be used to understand the characteristics of firms of various sizes.

Q50. What is the estimated total dollar value of annual shipments of «COMM» received at this facility's location?

_____ total dollar value of annual shipments
☐ Don't Know

Q51. Can you give us the total tonnage of your ANNUAL SHIPMENTS of «COMM»? *(Your best estimate is fine.)*

_____ total tonnage of annual shipments

Q52. Storage capacity has been shown to be a key component to transportation decisions. What is the total dollar value of all «COMM» products stored when storage is at full capacity?

_____ total dollar value at full capacity
☐ Don't Know

Q53. Can you give us the total tonnage or alternative unit of «COMM» products stored when your facility is at full capacity? *(Your best estimate is fine.)*

_____ total tonnage at full capacity or total other unit. Specify other unit _____

Q54. What is the average dollar value you pay for «COMM» on a per unit basis?

_____ $ per unit

Please specify unit

1 tons
2 pounds
3 hundred weight (cwt)
4 gallons
5 bushels
6 shipment
7 some other unit (specify): _____

Q55. How many years has this facility been at its current location?

_____ years

Q56. How many facilities such as this one does your firm own OR operate?

_____ facilities

-9-

«IDNUM»

Q57. Does your firm (or parent company) own facilities used to import or export «COMM» to and from the United States?

1 Yes
2 No

Q58. Is your company a . . .

1 Cooperative
2 Corporation
3 Privately owned proprietorship
4 Something else - (please specify)

Q59. What product do you typically sell?

_____

Q60. What do you receive for the product you sell per unit?

_____ $ per unit

Please specify unit

1 tons
2 pounds
3 hundred weight (cwt)
4 gallons
5 bushels
6 shipment
7 some other unit (specify): _____

If you have any comments about transportation needs, please write them in the box below.

Please return your completed questionnaire to

Social & Economic Sciences Research Center
PO Box 641801
Pullman, WA 99164-1801

Fax: 509-335-4688

-10-

Please complete the questions in this table if you have more than one shipping alternative.

Additional Shipping Alternatives	**Second Alternative**	**Third Alternative**	**Fourth Alternative**
Q23A. Please tell me your next alternative for receiving this commodity. First, what origin would you use?	1 Same origin 2 Different origin Please Specify: __________ city __________ state	1 Same origin 2 Different origin Please Specify: __________ city __________ state	1 Same origin 2 Different origin Please Specify: __________ city __________ state
Q24A. What type of origin is this?	1 River terminal 2 Distribution center 3 Railroad terminal 4 Procession/fabrication plant 5 Mine 6 Quarry 7 Other (specify) __________	1 River terminal 2 Distribution center 3 Railroad terminal 4 Procession/fabrication plant 5 Mine 6 Quarry 7 Other (specify) __________	1 River terminal 2 Distribution center 3 Railroad terminal 4 Procession/fabrication plant 5 Mine 6 Quarry 7 Other (specify) __________
Q25A. How large in weight or volume would this inbound shipment be?	__________ weight or volume Specify unit 1 tons 2 pounds 3 hundred weight 4 gallons 5 bushels 6 shipment 7 Other (specify) __________	__________ weight or volume Specify unit 1 tons 2 pounds 3 hundred weight 4 gallons 5 bushels 6 shipment 7 Other (specify) __________	__________ weight or volume Specify unit 1 tons 2 pounds 3 hundred weight 4 gallons 5 bushels 6 shipment 7 Other (specify) __________
Q26A. Do you have an estimate of how much this inbound shipment of this commodity would weigh in tons?	__________ weight in tons	__________ weight in tons	__________ weight in tons
Q27A1. Which transportation modes would you use in this inbound shipment? *Circle all that apply.*	1 Truck 2 Rail 3 Barge 4 Other (specify) __________	1 Truck 2 Rail 3 Barge 4 Other (specify) __________	1 Truck 2 Rail 3 Barge 4 Other (specify) __________
Q27A2. What would be the distance traveled for each mode you would use?	______ Truck miles ______ Rail miles ______ Barge miles ______ Other miles	______ Truck miles ______ Rail miles ______ Barge miles ______ Other miles	______ Truck miles ______ Rail miles ______ Barge miles ______ Other miles
Q27A3. What would be the transportation rate for each mode you would use?	______$ per unit Truck ______$ per unit Rail ______$ per unit Barge ______$ per unit Other Specify unit 1 tons 2 pounds 3 hundred weight 4 gallons 5 bushels 6 shipment 7 Other (specify) __________	______$ per unit Truck ______$ per unit Rail ______$ per unit Barge ______$ per unit Other Specify unit 1 tons 2 pounds 3 hundred weight 4 gallons 5 bushels 6 shipment 7 Other (specify) __________	______$ per unit Truck ______$ per unit Rail ______$ per unit Barge ______$ per unit Other Specify unit 1 tons 2 pounds 3 hundred weight 4 gallons 5 bushels 6 shipment 7 Other (specify) __________

-11-

Access Code: _«IDNUM»_

Additional Shipping Alternatives continued

	Second Alternative	Third Alternative	Fourth Alternative
Q28A. What would be the total transport cost?	_____ transport cost	_____ transport cost	_____ transport cost
Q29A. Shipment time is sometimes a problem for shippers. From the time the equipment becomes available to how long it would take to transport the commodity to the final destination, what do you estimate the shipment time would be (in days and hours)?	_____ days _____ hours	_____ days _____ hours	_____ days _____ hours
Q30A. How long would it typically take you to set up the transportation for a shipment like this?	_____ days _____ hours	_____ days _____ hours	_____ days _____ hours
Q31A. Reliability of on-time arrivals can be another concern. For shipments like this one, what percent of the time would you expect them to arrive on time?	_____ percent	_____ percent	_____ percent
Q32A. How much would you pay for this commodity per unit from this origin?	_____ weight or volume Specify unit 1 tons 2 pounds 3 hundred weight 4 gallons 5 bushels 6 shipment 7 Other (specify) _____	_____ weight or volume Specify unit 1 tons 2 pounds 3 hundred weight 4 gallons 5 bushels 6 shipment 7 Other (specify) _____	_____ weight or volume Specify unit 1 tons 2 pounds 3 hundred weight 4 gallons 5 bushels 6 shipment 7 Other (specify) _____
Q33A. Would this be a transaction that is internal to your company or would it be external?	1 Internal 2 External	1 Internal 2 External	1 Internal 2 External
Q34A. Could you still make a profit with this transportation alternative?	1 Yes → **Go to third alternative** 2 No → **Go to Q35, page 7**	1 Yes → **Go to fourth alternative** 2 No → **Go to Q35, page 7**	1 Yes → **Go to Q35, page 7** 2 No → **Go to Q35, page 7**

Please return your completed questionnaire to

Social & Economic Sciences Research Center
PO Box 641801
Pullman, WA 99164-1801

Fax: 509-335-4688

-12-

Prior Notification Letter

September 10, 2007

«company»
Attention: Logistics/Shipping Manager
«address»
«city»«state»«zip»

Transportation rates and service are central to the competitiveness of businesses. Transportation is becoming expensive and delayed at times, and there is significant need for investment in highways, railroads, and waterways. Federal and state agencies are typically mandated to assess the costs and benefits of investments. These assessments require information on the ways you send or receive commodities and the options that you have.

The study is being conducted by the Social and Economic Sciences Research Center at Washington State University with support from the federal government. This survey is also being implemented with the knowledge and endorsement of Waterways Council, Inc.

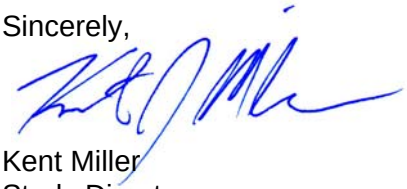
Within the next few weeks, you may receive a telephone call from the Center. During this telephone call you will be asked to provide information on the transportation facilities in your firm, information about shipments that have been made or could have been made and information on shipping decisions and alternatives. If you prefer, you may complete the survey online at **www.opinion.wsu.edu/OhioRiver**. Your access code is: «RespID»

The telephone call should last no longer than about 20 minutes. Of course, all information will be held in the strictest confidence. The results will be used to provide a better understanding of transportation investments by the federal government.

We are centrally interested in transportation movements that could involve or are affected by the waterways and railways. Our assessment of your company suggests that the type of traffic you move and your location may involve these modes or could involve these modes, perhaps through a truck or rail connection. If you have any questions regarding this study, please call 1-800-833-0867 or email SESRCweb3@wsu.edu and mention the "Transportation Demand Study". Additionally, please use the enclosed postcard to update your contact information.

Thank you very much for helping with this study. Your input to this survey is essential!

Sincerely,



Kent Miller
Study Director

PS. This survey has been reviewed and approved by the Washington State University Institutional Review Board (IRB) for the protection of human subjects and the Office of Management and Budget (OMB control number 0710-0001). If you have any questions about your rights as a survey participant, please contact the IRB office at 509-335-3668 or irb@wsu.edu. (IRB# 9892)

Social & Economic Sciences Research Center
PO Box 644014
Washington State University
Pullman, Washington 99164-4014
Telephone: (509) 335-1511
Fax: (509) 335-0116
http://www.sesrc.wsu.edu
sesrc@wsu.edu

navigation · economics · technologies

The NETS research program is developing a series of practical tools and techniques that can be used by Corps navigation planners across the country to develop consistent, accurate, useful and comparable information regarding the likely impact of proposed changes to navigation infrastructure or systems.

The centerpiece of these efforts will be a suite of simulation models. This suite will include:

- A model for forecasting international and domestic traffic flows and how they may be affected by project improvements.
- A regional traffic routing model that will identify the annual quantities of commodities coming from various origin points and the routes used to satisfy forecasted demand at each destination.
- A microscopic event model that will generate routes for individual shipments from commodity origin to destination in order to evaluate non-structural and reliability measures.

As these models and other tools are finalized they will be available on the NETS web site:

http://www.corpsnets.us/toolbox.cfm

The NETS bookshelf contains the NETS body of knowledge in the form of final reports, models, and policy guidance. Documents are posted as they become available and can be accessed here:

http://www.corpsnets.us/bookshelf.cfm

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